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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,516	01/11/2002	Kazuki Kawata	MOR-230-A	2840

7590 04/29/2004

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EXAMINER

KASTLER, SCOTT R

ART UNIT PAPER NUMBER

1742

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,516	KAWATA ET AL.	
	Examiner	Art Unit	
	Scott Kastler	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004 and 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3-30-2004 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwalm in view of Krogh et al and Waka et al. Schwalm teaches a carburizing apparatus (figures 1 and 2 for example) which can be employed to perform carburization at the recited gas pressures and compositions (it has been well settled that, with respect to instant claims 5 and 9, where the applied prior art apparatus could perform the functions recited in an apparatus claim the actual manner or method of use of an apparatus, such as recited operating temperatures or gas compositions, cannot be relied upon to fairly further limit claims to the apparatus itself, see *In re Casey*, 152 USPQ 235 and MPEP 2114), including a carburizing chamber (4), a general gas analysis means (6 and 8 for example, which may be any desired type of gas analysis means, see

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col. 3 lines 1-5 for example) and including a display of results, and a gas composition adjustment means (14,20) for adjusting the carburizing gas content in response to the results of the gas analysis, thereby showing all aspects of the above claims, including maintaining the carbon monoxide content to below 20% (see example 2 for example, where CO is 18.18%) except to specifically maintain the atmosphere at a pressure of between 13 and 4000 Pa. Or employ a thermal conductivity measurement means as the gas analysis means. Krogh et al teaches that it was known in the heat treatment art at the time the invention was made to employ a thermal conductivity sensor in a heat treatment furnace in order to measure gas compositions (gas analysis) and employ this means for adjusting the gas composition of the furnace atmosphere (see claim 3 for example) and that thermal conductivity measurements give accurate recordings of gas composition. Waka et al teaches, that in a carburizing process, in order to reduce sooting, it was known in the carburization art at the time the invention was made to maintain a carburizing atmosphere at 3 kPa (3000 Pa) (see col. 3 lines 1-10). Because accurate measurement and adjustment of gas composition as well as the reduction of sooting during carburization would also be recognized as desirable in the process described by Schwalm, motivation to both maintain the heat treating atmosphere at a level of between 13 and 4000 Pa, as taught by Waka et al to reduce sooting, and employ the thermal conductivity measurement gas analysis means described by Krogh et al as the general gas analysis means required by Schwalm, would have been modifications obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

Applicant's arguments that Schwalm does not specifically teach a thermal conductivity measurement means as the gas analysis means, see the paper filed 3-30-2004, with respect to the rejection(s) of claim(s) 1, 5, 9 and 10 under 35 U.S.C. 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Schwalm in view of Krogh et al (showing the measurement of thermal conductivity to determine and control gas compositions in a heat treating furnace) and Waka et al as described above.

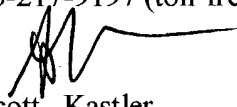
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Scott Kastler
Primary Examiner
Art Unit 1742

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